Holothuridæ, the great distinction between them being that in the Holothuridæ the pupa has already passed through the more active "Auricularian" stage, while the analogous form in *Comatula* has been developed directly from the egg.

ZOOLOGICAL SOCIETY.

Nov. 11, 1862.—Prof. Huxley, F.R.S., V.P., in the Chair.

Descriptions of Two Corals from Madeira, belonging to the genera Primnoa and Mopsea. By James Yate Johnson, Corr. Mem. Z.S.

Fam. GORGONIIDÆ, M.-Edw.

Subfam. Gorgoniinæ, M.-Edw.

Sect. Primnoaceæ, M.-Edw.

Primnoa imbricata, sp. n.

White, having a tendency to branch dichotomously in one plane; the branches slender, flexible, not plume-like, and not anastomosing. Axis pale brownish yellow, spineless, obscurely striated, effervescing in hydrochloric acid, coated with small white scales composed of carbonate of lime. Over the lower coating of scales there is another coating of larger scales, with a wide space between the two. The outer coat, which is easily removed, appears to be attached to the peduncles of the cells. These peduncles are in closely-set whorls of three or four, each of which expands into a cup-like cell, having its mouth closed in the dead coral with eight scales that have their apices in contact. The peduncles project at right angles from the stem, and are also clothed with scales.

This is a much more delicate form than *Primnoa lepadifera*, in which species the pedunculated cells appear to be arranged spirally on the branch.

Two specimens of this elegant *Primnoa* have been obtained, the larger of which has a height of $8\frac{1}{2}$ inches, with a width of 11 inches. It was attached to a piece of *Lophohelia* (*Oculina*) *prolifera*. The whorls of the pedunculated cells are about three-twentieths of an inch apart, and the peduncles about the same in height. The principal branch, near the base, has a diameter of one-fifth of an inch. The smaller example has been deposited in the British Museum.

Subfam. Isidinæ, M.-Edw.

Mopsea arbusculum, sp. n.

The whole coral is coated with a thin brown skin. When this skin has been removed from the lower calcareous joints, they are found to be stony, white, subcylindrical, but rather narrower at the middle than at either end. They are finely striate longitudinally, and the striæ are parallel and straight. The interjoints do not nearly equal the joints in length, being little more than discs, and are somewhat less in diameter. They are striate, and from them spring the branches. These branches are very numerous, diverging

in all directions subdichotomously, and making a tolerably thick bush. They are much thinner than the main stem, and they become gradually more slender upwards, the calcareous joints at the same time becoming longer. Occasionally two of the ultimate branchlets come into contact and are soldered together. Each branchlet bears at its apex a cell of a shape between campanulate and infundibuliform, the margin of which bears eight pairs of long, upright, spine-like spicula. There are also sessile cells at the sides of the ultimate branchlets, one at each interjoint. All the cells are of a pale brown colour. The pellicle covering the branchlets contains long spicula, which are for the most part large and fusiform, whilst the smaller ones are cylindrical, and all are brown and minutely tuberculated.

A single example of this Coral was obtained from a fisherman at Cama de Lobos, Madeira, and it is now in the British Museum. Its length, without the base, which is wanting, is 13 inches, and it is 7 inches across. The lower part of the main stem has a diameter of three-tenths of an inch, and its calcareous joints are about three-eighths of an inch in length. The branches are broken away from this part of the stem; but there are remains to show that some of the interjoints bore four branches, others only one. A cell, with its marginal spines, measures the fifth of an inch.

This coral seems to be nearly related to *Mopsea dichotoma*; but M. Milne-Edwards gives the Indian Ocean (with a mark of doubt) as the habitat of that species. Strange to say, that writer, in his work on Corals ('Histoire Naturelle des Coralliaires,' forming one of the 'Nouvelles Suites à Buffon'), is altogether silent as to the cells of *Mopsea*. Lamouroux says that the polypi (? cells) of *M. dichotoma* are mammiform on the higher, tuberculous on the middle, and superficial on the lower branches. This would ill accord with the Madeiran specimen. Little agreement can be made out between that specimen and the figures of Esper, "Pflanzenthiere," Isis, pl. 5, figs. 1–5.

Nov. 25, 1862.—E. W. H. Holdsworth, F.Z.S., in the Chair.

Mr. W. K. Parker read the following abstract of a Memoir on the Osteology of the genera *Pterocles, Syrrhaptes, Hemipodius,* and *Tinamus,* intended for publication in the Society's 'Transactions:' —

"The classification of the gallinaceous birds would be easy enough if it were not for certain outliers, which refuse to conform to that particular plan of structure with which we are all so familiar in that very convenient and natural type of the group, the Common Fowl.

"Agreeing with this bird in all essential respects are the genera *Phasianus, Polyplectron, Lophophorus, Tragopan, Pavo, Meleagris, Numida,* and many others, the species of which are in many instances creatures of unsurpassed beauty. This properly typical group has, amongst other characteristics, its species provided with a robust body, short rounded wings, and very strong legs; whilst the tarsi are naked, provided with one or two spurs, and having the generally small heel elevated above the anterior toes.

"Notwithstanding the more subdued style of colouring, and

the rudimentary condition of the spur, the Red Partridge (*Perdix rubra*) ought to be placed with the Francolins in the typical group.

"Still further, if we are to be guided by the structure of the skeleton, and especially by that of the skull, the dwarfs of the family, the Quails (*Coturnix*), ought to stand in the same inner circle as the gigantic species, the Turkey and the Peacock.

"In a subtypical group all those forms ought to be placed, in which, besides the quiet style of colouring, we find feebler legs, often with the tarsi feathered, a more depressed pigeon-like form of the body, and a skull with thinner and more fibrous walls, combined with a much enlarged tympanic cavity. The spur is also obsolete.

"The Grey Partridge (*Perdix cinerea*) should be classed with this subfamily—the *Tetraonidæ*.

"This beautiful and valuable bird is, as is especially shown in the structure of its skull, much more nearly related to the Ptarmigans (*Lagopus*) than to *Perdix rubra*, with its very thick-walled cellular skull, small tympanic cavities, and rudimentary spur.

"There is a group of very majestic birds inhabiting the warmer parts of the New World, which differs so much from the *Gallinæ* proper and from the *Tetraonidæ*, that it must be considered to belong to an outer or aberrant place in the great gallinaceous family. I allude to the *Cracidæ*.

"These birds, less ornate indeed than their normal relatives, are nevertheless creatures of great interest, and of no little beauty, whether we consider their form or their mode of colouring.

"In this outer circle we place the Guans (*Penelope*), the Curassows (*Crax*), the genera *Ortalida*, *Opisthocomus*, and others.

"The mode in which the *Cracidæ* differ from their terrestrial typical congeners is highly interesting; but as the present paper is only intended to be an introductory outline, I shall not 'bestow all my tediousness' upon the Society by going into details now: suffice it to say that they appear to me to connect the *Gallinaceæ* quite as much with the Plantain-eaters (*Musophagidæ*) as with the Pigeons.

"The habit, which has given the family-name *Rasores* to the Fowl tribe, curiously enough, does not attain its highest degree in the typical species, but is developed in certain subtypical genera which are found ranging from the Philippines through the islands of the Indian Archipelago to Australia: these birds are the Megapodes*.

"In the 'Mound-maker' we have a bird which, whilst marvellously like the Common Hen in gentleness of expression and neatness of contour, has also a most striking isomorphic resemblance to certain members of a very distantly related family, viz. the Gallinules.

"My acquaintance with the structure of *Talegalla* was made sixteen or seventeen years ago; for at that time I met with and made drawings of a precious skeleton of this bird in one of the drawers of the Museum of the Royal College of Surgeons; it has not, however, been noticed in the Catalogue.

"Being therefore well and safely possessed of the fact that the Brush Turkey (*Talegalla*) does not, in any *essential point of struc-*

* Gould (see Penny Cyclop., art. "Talegalla").

ture, differ from the Common and Ocellated Turkeys (*Meleagris Gallo-pavo* and *M. ocellata*), I was indeed surprised to find that, as late as last spring, Professor Owen had classed them with Cuvier's *Macrodactyli*.

"In the report in the 'Medical Times and Gazette' of the fourth of Professor Owen's Jermyn Street Lectures for this year, delivered on the 23rd of May, I find the classification which he has adopted, and in which the mound-making birds are placed between the Rail and the Screamer.

"As there are in the same system of classification several other instances of what appear to me, to say the least, very odd and confusing misplacements, I shall crave the liberty to point them out, and to make my own remarks upon them, especially as the position in nature of these birds is exactly what I have set myself to try and find out. It is in Professor Owen's Second, Third, and Fourth Orders, viz. the 'Grallatores,' 'Cursores,' and 'Rasores,' that I find most to surprise and confuse me.

"The family *Macrodactyli*, of the Second Order, 'Grallatores,' according to this eminent author contains the 'Coot, Crane, Rail, Megapode, Screamer,' and 'Jacana.'

"The next family, or the 'Cultrirostres,' contains, we are told, the 'Boat-bill, Adjutant, Heron, Ibis, Stork, Tantalus,' and 'Spoon-bill.'

"The third family, or 'Longirostres,' is said to be composed of such forms as the 'Gambet, Avocet, Snipe, Ruff, Turnstone, Curlew, Sandpiper,' and 'Godwit.'

"And the fourth, or the 'Pressirostres,' the 'Oyster-catcher, Thick-knee, Plover, Lapwing, Bustard,' and 'Courser.'

"Then in his Third Order, the Cursores, Professor Owen places these genera, and in this succession, viz.:—

'*Apteryx.*
Didus, Pezophaps.
Ostrich, Emeu, Nandú.
Cassowary.
Notornis.
Dinornis, Palapteryx.'

"In the Order 4, 'Rasores,' he gives us two families, viz. the *Gallinacei* or *Clamatores*, and the *Columbacei* or *Gemitores*.

"The first of these is exemplified by the 'Pea-fowl, Partridge, Quail, Pheasant, Ganga, Grouse, Pintado, Tinamú, Turkey, Curassow,' and 'Guan.'

"The second is made to contain the 'Dove, Goura,' and 'Vinago.'

"First, as to the Macrodactylous *Grallæ*, the Porphyriine *Notornis* is wanting; and, besides the Megapode, the Crane certainly has no business there, being (as its embryology reveals) a gigantic specialized aberrant of the Pressirostral family.

"As to the *Cultrirostres*, I feel pretty certain that the Spoonbill and the Ibis will have to be placed in the next family, the *Longirostres*, a group less specialized from the Plover type than the Cranes. If this should turn out to be the truth, the 'Pressirostres' and the

'Longirostres' must receive accessions at the expense of the 'Cultrirostres,' which family, however, possesses the *Balæniceps*, the Umbre, and the *Eurypyga*.

"With regard to the 'Cursores,' it seems to me much better to use the simple term *Struthionidæ*, and to let *Didus* and *Pezophaps* abide where Messrs. Strickland and Melville most appropriately placed them, viz. amongst the Ground-Pigeons; the *Notornis* being marched back again to its proper place, between *Tribonyx* and *Porphyrio**.

"I hope to console the lover of the struthious tribe by compensating him for the loss of the Dodo and the *Notornis* with the gain of what has hitherto been considered as a true gallinaceous genus: I refer to the Tinamou.

"The examples given of the gallinaceous genera in Professor Owen's classification are principally remarkable for want of order, as the Ganga is not intermediate between the Pheasant and the Grouse, but between the Grouse and the Pigeon, and the Tinamou certainly has no place between the Pintado and the Turkey.

"The Gemitores might stand as they are, as to the examples given; but they are not *Rasores*.

"In the same lecture in which the 'classification' is given, the *Notornis* is said to be 'allied to the Coots,' and the Cassowaries 'still more modified Coots.'

"This seems to me to be an inversion of the natural order of things; for the Cassowary, every one knows, is in all respects typically struthious in its whole skeleton, but is most decisively seen to be so in its cranium and facial bones; and all the *Struthiones* are low, embryonic, unspecialized forms.

"That there is a near relationship between the Rail-tribe and the Ostriches I feel certain; but the former seem to me to stand on the same level typically (or in relation to the highest style of bird) as the Rasorial group, and in some respects on a higher one; but I would not press this too far, as the skulking habits of these birds seem to point to a lower brain-development than even the Fowl possesses, and to place them in near contiguity to the Ostriches: moreover *Brachypteryx* is, in respect of its wings and sternum, but little in advance of the great '*Brevipennes*.' Cranially, however, it is in advance; and it seems to be a more philosophical way of putting the matter to say that a Coot is a modified Cassowary, than that a Cassowary is a modified Coot. Whether Mr. Darwin is right in all respects or not, yet we all believe with him that nature does not retrograde, but ascends from the simpler to the more highly specialized forms.

"I shall not take up either the Society's time or my own in merely arguing about these puzzling affinities, but hope soon to be able to

* Dr. Mantell (Petrifactions and their Teachings, page 125) says that "the general form of the skull" of *Notornis Mantelli* "approaches nearest that of *Brachypteryx*;" whereas that of *Tribonyx Mortieri* (Osteol. Catal. Mus. Coll. Chir. vol. i. p. 239, No. 1281) comes nearer. In the sternum, however, *Notornis* is most like *Brachypteryx*.

bring forward some simple drawings and descriptions, such as shall enable any one to judge for himself to what type these birds really do belong.

"I intend moreover in my larger paper to consider the relationships of *Oreophasis Derbianus*.

"But the birds hitherto mentioned are all easily referred to their proper zoological position; those, however, of which it is my principal business to speak stand just above the *Struthionidæ*, in such a doubtful position that it is at first hard to say whether they have declared for any one of the families by which they are surrounded.

"The Sand-Grouse, the Hemipodes, and the Tinamous have in their composition such a mixture of characters, that they seem to be the very birds which might in the lapse of ages, through climatal change, a different diet, 'the struggle for existence,' and 'natural selection,' give rise to such divaricating and dissimilar types as the Pigeons, the Gallinaceous birds, and the Plovers.

"These last-mentioned families are those the characters of which the osculant forms under consideration most affect, with, let it be remembered, a more or less broad struthious basis.

"There are other genera, however, the osteology of which I long to know, viz. *Thinocorus*, *Attagis*, and *Chionis*.

"Speaking of these birds, Mr. Darwin, in his most pleasant 'Journal' (ch. 5. p. 94), makes the following remarks:—

"'This small family of birds is one of those which, from its varied relations to other families, although at present offering only difficulties to the systematic naturalist, ultimately may assist in revealing the grand scheme, common to the present and past ages, on which organized beings have been created.'

"*Thinocorus rumicivorus* partakes, according to this excellent author, 'of the characters, different as they are, of the Quail and the Snipe' (ibid. p. 94).

"As to the *Attagis*, Mr. Darwin says (p. 94), 'The two species of this genus are in almost every respect Ptarmigans in their habits;' and of *Chionis alba*, that it 'is an inhabitant of the Antarctic regions,' that 'it feeds on sea-weed and shells on the tidal rocks,' and that, 'although not web-footed, from some unaccountable habit, it is frequently met with far out at sea' (ibid. p. 94).

"Will some lover of ornithology be on the look-out to procure something more than the *skins* of the birds of these three genera?*

"It would tend towards our knowledge of the meaning of these birds of mixed character and osculant relationship, if we knew how long each type has been on the planet; for if our Fowls and Peacocks, Doves and Gouras, are really comparatively new importations to the 'green earth,' then there would be some colour and life in 'Darwinism,' and the Ostriches, Tinamous, and Sand-Grouse might be looked upon as a remnant of the 'flint-folk' of the bird-class.

"It is, however, almost impossible for the most devout believer in separate creations to keep this idea of 'ancestral relationship' alto-

* There is a skeleton of *Chionis*, I find, in the British Museum.

gether out of his mind when considering such birds as those we are speaking of: at any rate, dogmatism on either side, on a subject so far beyond the reach of our feeble faculties and limited knowledge, has in it something of profanity. I have, up to this time, only been able to get a sight of the skeletons of *Pterocles arenarius* (see Osteol. Cat. Mus. Coll. Chir. vol. i. p. 273, No. 1421), of *Hemipodius varius* (ibid. p. 274, No. 1423), of a specimen of an undetermined species of *Hemipodius* (which died soon after its arrival at the Gardens, and was lent to me by Mr. Gerrard), and of a *Syrrhaptes paradoxus* and a *Tinamus robustus*, for which I am indebted to the Council of this Society.

"I shall now merely indicate the curious composition, so to speak, of these birds, and begin with that of the Sand-Grouse.

"These beautiful and gentle birds are seen at once to have in them something both of the Ptarmigan and the Pigeon; but there is in their physiognomy a marked inferiority of expression, quite in contrast with the sharp, intelligent look of the typical Fowls, and very much below what we see in the Pigeon-tribe.

"This is exactly in harmony with what the skeleton reveals; for whilst the characters of both these types are almost inextricably interwoven, yet there is in many points a marked inferiority of character—a less degree of elevation above the Struthious style of structure. What there is of the Bustard (*Otis*) in them (which Professor Owen, 'Osteol. Catal.' p. 274, points out) is only part of their general relationship to the Pluvialine type.

"It is in those parts of the skull and face which are first mapped out in thickened blastema, and then differentiated into clear cartilage, at some considerable period of the early embryonic life anterior to the deposit of bone, that we find the most instructive modifications of structure.

"I allude especially to the basis cranii and to the upper part of the first facial arch, that is, to the occipital and sphenoidal regions, and to the pterygoids, palatine bones, and vomer. Not only do these bones (with the exception of the vomer, which is absent as in the Pigeons) show a marked 'struthious' inferiority in the *Syrrhaptes* (the culmination of the Pterocline type of structure), but the sternum, which literally unites that of the Ptarmigan with its counterpart in the Pigeon, is inferior in one important point, not only to this, but also to that of the whole Pluvialine group.

"The heel, which is a mere rudiment in *Pterocles* proper, is absent in the *Syrrhaptes*; and the whole pelvic extremity is almost the counterpart of that of the Swifts (*Cypselus*) in deficient growth. I believe that it would take a very clever anatomist to detect any difference between the wing-bones of the '*Pteroclinæ*' and those of a typical Pigeon.

"The elongated feathers of the tail and wings of *Syrrhaptes* give it one of its peculiarities of character: the two middle tail-feathers have already become elongated in *Pterocles setarius* (the Pin-tailed Sand-Grouse of Temminck), its nearest ally.

"I cannot conclude this rough outline of what I wish to say about

the Sand-Grouse, without referring to what Dr. Andrew Smith tells us of *Pterocles gutturalis*, Sm., in his 'Illustrations of the Zoology of South Africa.'

"First, what must be considered a 'Pluvialine' character, the eggs are of a 'dirty-white or cream-colour, marked with irregular streaks and blotches of a pale-rusty and pale-grey or ash-colour;' and the second point is the careless habit of laying them upon the bare ground*. This habit, so untypical ornithically, so unlike the almost *human* family tenderness of their relatives, the Pigeons, is, however, much like the conduct of the unthinking 'giants' that come next below them in the zoological scale.

"So that not only the Ostrich, but also the Sand-Grouse 'leaveth her eggs in the earth, and warmeth them in the dust, and forgetteth that the foot may crush them, or that the wild beast may break them.'

"If birds were intelligent in the *human* sense of the word, their relationship to the reptiles would be as humiliating as our affinity to the *Simiæ*; but the fact is certain that these low types not merely have in themselves obscure anatomical resemblances, but their instincts and habits are plain, out-spoken evidences of their nearness in nature to 'the creeping things after their kind.'

"I now leave *Syrrhaptes* (which, at first sight, seems to run in some mysterious way without the help of feet) to speak of the stilted *Hemipodius*, an aberrant gallinaceous bird, which has escaped from its more steady *walking* allies to join the true coursing birds. Without heel, with not only naked tarsi, but with the lower half of the tibiæ bare; what can these birds be but true essential '*Grallæ*.'

"They may be in a sense grallatorial, but are not really so, as we shall see, if we work out their mixed affinities.

"The *Hemipodii* (some of which are very small, and, like some other small creatures, very pugnacious) stand pretty exactly between the Tinamous and the Quails; but not quite so, for the Pigeon comes in again, even here, with a touch of kinship, the connecting links being the *Didunculus* and the dwarf Ground-Pigeons (*Chamæpelia*).

"The characters of head are almost equally divided between those of the Ground-Pigeon and the Quail; the sternum, between the Quail and Tinamou; yet the legs are those of a little Sand-Plover, although they are hinged upon a pelvis which would require but little altering to suit a Quail.

"I must ask for more time and space, if not to settle this difficulty, yet to put it into a proper form for some fuller mind to explain; for it seems to me that my position of 'interpreter' is in this case more perplexing than that of the purblind patriarch, who found the hands of his hairy son Esau combined with the vocal organs of the smooth-limbed Jacob.

"I have now merely to speak of the Tinamous; and in their case also I must merely indicate the kind of task they present to him who would fairly work them out.

* Penny Cyclop., art. *Tetraonidæ*.

"In the first place, let me at once say that they have no right to the dignity of the gallinaceous title; they are little struthious birds, looking upwards from that simple rudimentary beginning of the beautiful ornithic type.

"Nearly all the specialization of this bird, by which it rises above the *Struthionidæ*, is in the direction of the true or typical gallinaceous bird, and not towards the Ptarmigans, as is the case of the Sand-Grouse.

"The *Hemipodius* runs upwards towards the little flat-bodied typical Quails; but there is no bird better for comparison with the Tinamou than the common Hen. Nine-tenths of the characters of the bony structures of the head in this bird are truly struthious: the residuum belonging half to the Plover and half to the Fowl.

"It is not a little curious, however, that it outdoes the Plover in one thing, viz. the structure of the supraorbital region; for whilst the nasal or supraorbital glands in the *Pluvialinæ* are protected by a continuous beam of bone, the Tinamou has the unique character of a series of those bones. In the young Ring-Dottrel I find a series of square denticles growing out from the margin of the frontal below, and external to the large gland; these exogenous processes fuse together in the adult.

"I had racked my memory to find an instance of multiplied supraorbitals in a vertebrate skull, but in vain, when one turned up to me on examining the Reptilian skeletons in the Museum of the College of Surgeons, a few months ago: this example is the skull of the Trigonal Cayman.

"There are three on each side in this latter creature, united by a triradiate suture; in the Tinamou, however, there are six or seven larger and several smaller ossicles on each side. At first sight it seems as though half the sclerotic ring had been attached there by accident; these supraorbitals are, however, much stronger than the sclerotals.

"The sternum of the Tinamou is greatly differentiated when compared with that of a Rhea or Emeu; but all the improvement is gallinaceous. It is absolutely the most unique and wonderful of all the sternums I have seen, the variations of which in the bird-class, as is well known, are very great and very exquisite.

"The presence of a somewhat deep keel, so seemingly fatal to the struthious theory of this bird's relationship, strange to say, turns out a good proof of its validity and truth. Every one who has watched the larger-winged Ostriches must have noticed their habit of lifting their wings—a motion performed by the middle pectoral muscles or *levatores* of the humerus: to these muscles nearly all the keel of the Tinamou's sternum is devoted, a most narrow, small corner being left for the thin abortive *depressores*—muscles which, not only in typical birds, but also in the heavy Gallinaceæ, are of very large size. The small 'furculum' is Pluvialine; but the coracoids and scapulæ come very near to those of the common Fowl.

"The blending of the last cervical with three out of four of the dorsal vertebræ is gallinaceous; but the absence of costal appendages,

except a small one on the second true rib and a trace on the third, is struthious enough. The pelvis looks, at first sight, but a few removes from that of the Hen; and in so much as it differs from the pelvis of the Emeu or the Apteryx (which have very compressed pelves, whilst this is broad and gently arched), in the same degree does it approach that of the Fowl. The preacetabular spur of the ilium is there; but the postfemoral part of that bone looks as if it had been pared away, leaving an enormous ischiadic *notch*, which is a *foramen* in typical birds. The tail is a mere pretence (as Wagler's term *Nothura* well expresses); the caudal vertebræ are therefore but little better than those of an Ostrich. The strong legs leave us the choice, at first sight, of referring them to either the Fowl or the Ostrich; and the heel, small and high up, is gallinaceous. But the tarso-metatarsus, covered with transverse plates in front, has the posterior two-thirds invested by an intensely strong imbrication of horny scales; thus adapting the leg of the bird to that odd sitting position (about as elegant as that of the Ass in the first stage of the erect posture) in which the *Struthionidæ* delight."

MISCELLANEOUS.

On Chlamyphorus. By Dr. Burmeister.

Dr. Burmeister has sent from Buenos Ayres the description of a second species of *Chlamyphorus*. He defines them thus:—

1. *Chlamyphorus truncatus*. Minor, chlamyde dorsali lateribus libere dependente, subtus cum artubus vellere molli recto subsericeo indutus; cauda thecaque anali perfecte cataphractæ.
   Hab. Mendoza.
2. *Chlamyphorus retusus*. Major, chlamyde dorsali lateralibus corporis adnata, subtus cum artubus intus vellere undulato, sat lanuginoso indutus; cauda thecaque anali imperfecte cataphractæ.
   Hab. Circa oppidum Stæ. Crucis de la Sierra Bolivia.

He gives three figures of the species.

On the Action of Magenta upon Vegetable Tissue. By J. G. Lynde, F.G.S., M. Inst. C.E.

The author describes a series of experiments upon cuttings of *Vallisneria* immersed in a solution of magenta in cells under the microscope, and its effect upon the circulation in the plant. He found that so long as the vital action continued, the cell-walls and the moving chlorophyll retained their green colour, but the injured cells were immediately deeply reddened, and their contents gradually acquired the same colour, the intensity of which was in proportion to the thickness or density of the tissue. Between the cell-walls it would appear that there exists an intercellular membrane, devoid of